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Loading U.S. cotton for export. Such shipments rose sharply in fiscal 1977.

Boom Year Ahead For U.S. Apple Exports

By Gilbert E. Sindelar

Ever since Eve took that first bite, apples have been a popular fruit: Witness the latest export figures for U.S. apples in 1976/77—over 120,000 metric tons—the highest level in many years. U.S. apple exporters also are looking forward to a banner year in 1977/78, as a short European apple crop opens up trade opportunities in an area traditionally closed to U.S. apple shipments.

Apple exporters in the United States are looking forward to another banner year in 1977/78 for exports, the second in a row. Exports this past season were the best in many years, and the present season promises to be even better as a very short apple crop in Western Europe opens up trade opportunities in that area.

Because of the short European harvest, U.S. apple exports for 1977/78 are expected to exceed those of last season by a sizable margin. U.S. apple exports in 1976/77 totaled 120,063 metric tons (approximately 6.3 million cartons, equivalent 42-lb units), the largest in many years, and a rather spectacular performance, considering that the 1976 crop was 495,300 tons smaller than that of a year earlier.

Dollar earnings for apples moving into export in 1976/77 were also up—totaling $42.3 million, 27 percent higher than those of a year earlier.

The magnitude of the increase in this year's apple shipments, however, will depend to a large extent on the availability of shipping space, as well as the duration of the dock strike that began in early October along the U.S. Eastern Seaboard and gulf ports.

The U.S. position as an exporter of apples has often hinged on supplying countries with short domestic crops. Last season, Canada—with a shorter crop at home—accounted for more than two-thirds of the gain in U.S. apple exports.

This year, Western Europe—where the domestic apple crop is expected to be the shortest in 15 years—will be one of the areas where U.S. apple exports probably will find a ready market.

Aside from the random opportunities in these temporary markets, a strong undercurrent for future growth now appears to be developing in the Far East. Every season since 1970/71 has witnessed an increase in U.S. apple sales to this area.

Outcompeted in many European markets by France—the world's leading apple exporter—U.S. exporters during the past few years have turned their attention to other areas of the world, particularly the Far East.

What is so remarkable about U.S. penetration in the Far East is that it has been accomplished in the face of tremendous access problems. In some Far Eastern countries, the import duties alone would seem to be enough of a deterrent. For example, in Taiwan the basic import duty is 78 percent ad valorem and in Indonesia and Thailand the rate is 60 percent.

Nontariff Barriers

Nontariff barriers are also common. In Taiwan one trading company is the only authorized importer of apples. Once this company procures its supplies, it auctions the apples to local importers. Because of the normally limited supplies, the importers are generous with their bidding, with the result that retail prices of $1.25-$1.50 per apple are common. Despite this, the United States managed to ship 2,763 tons to this market in 1976/77.

Looking closer at U.S. apple export efforts abroad quickly points to the reason 1976/77 and 1977/78 hold good news for apple shippers.

Canada still continues to be a variable market from year to year. Last season, as

Mr. Sindelar is Director of the Fruit and Vegetable Division, Foreign Commodity Analysis, FAS.

a result of a short apple crop in Quebec, Canada took some 54,488 tons of U.S. apples—an exceptionally good export showing for the United States. It is unlikely, however, that U.S. exports to Canada in 1977/78 will equal that figure.

The relative weakness of the Canadian dollar at the moment places some restraint on potential U.S. sales to the Canadian market. However, Canada like the United States will be pushing hard on the European apple market this year, and a heavy and early export movement from Canada could improve prospects for sales of U.S. mid-to-late controlled-atmosphere apples to Canada.

Far Eastern Market

U.S. apple exports to the Far East in 1977/78 are expected to be up moderately over the 27,057 tons shipped last season, with most countries expected to have slight to moderate gains.

Less than 10 years ago, it was almost ridiculous to think of U.S. apple shipments ever penetrating this market. But since 1970/71, U.S. apple sales to the Far East have continued to trend upward, growing from 4,000 tons in that year to 27,000 tons in 1976/77.

Increased sales were the result of more active merchandising on the part of both sellers and buyers and a growing familiarity with Far Eastern trade practices.

There has also been significant improvement in the quality of U.S. controlled-atmosphere storage, which has resulted in a "vintage" apple, and boosted sales abroad.

Within the Far East, Hong Kong is the largest market for U.S. apples, and ranks second only to Canada as an importer of U.S. apples. Although exports of U.S. apples to Hong Kong slipped slightly last season, this country should continue to be a good market for the United States.

At the beginning of last season, Hong Kong was faced with a heavy inventory problem, as importers had overbought. Also, Hong Kong is no longer as heavily a transshipment point as in earlier years, as a number of Far Eastern countries currently buy more and more on a direct basis.

Another Far Eastern market, Singapore, took almost 6,778 tons last season, a 15-percent gain over year-earlier levels. Indonesia accounted for some 2,614 tons—a 38-percent rise in just 1 year. Taiwan and Malaysia are increasingly good markets.

The chances for higher U.S. apple exports to Western Europe are good to excellent this year. The European apple market is traditionally dominated by France, with U.S. participation limited more or less to years of short European crops.

The year 1977 will be one of those short-crop years in Europe, and U.S. apple exports to that market are expected to exceed the high of 1972/73 when 20,840 tons were shipped. This compares with 9,944 last season. Exports could be larger, but higher ocean freight rates plus unsettled economic conditions in the United Kingdom keep export estimates conservative.

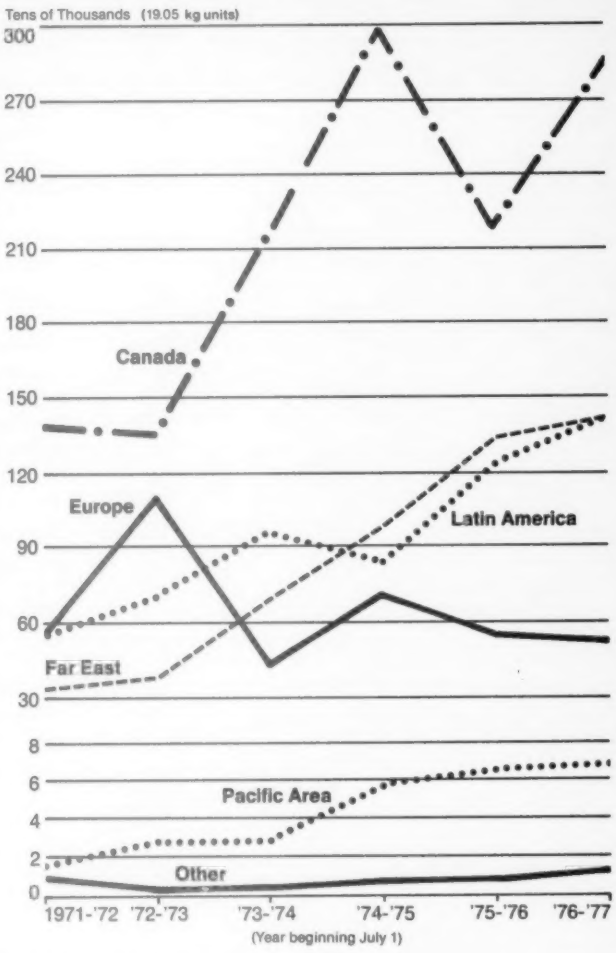
EC Crop Down

A recent report by Eurostat, the Crop Reporting Board of the European Community (EC), indicates that the Community's apple crop this year could be the worst since 1964's. (The EC contains every major apple-producing country in Western Europe.) Eurostat pegs the 1977 apple crop at 5.1 million tons, compared with 6.5 million last year, and the 1971-76 average of 6.7 million tons.

The drought that plagued Europe in 1975 and 1976, weakening the productive capacity of trees in a number of areas, is partially responsible for the shortfall, as are severe frosts in late spring and extremely heavy rains and hailstorms.

A recent USDA survey of U.S. Agricultural Attaché posts in Western Europe indicates an overall apple crop of 6.8 million tons in 1977—21 percent less than that of last year and 29 percent lower than that of 2 years ago.

U. S. Exports of Fresh Apples, 1971/72—1976/77



Other = not identified, Africa, Middle East.
Latin America = South America, Caribbean, Mexico and Central America.

"... a strong undercurrent for future growth (for U.S. apple sales) now appears to be developing in the Far East."

France's apple production for 1977 is estimated at 1.3 million tons, down 23 percent from that of last year. But last year (1976) is not a good benchmark for comparison; owing to the severe drought, the 1976 harvest was not an average one either in France or in many other European countries. Comparing the 1977 estimate with 1975—a more normal year—the French crop is off 38 percent.

The shortfall in France's crop is likely to be felt throughout Europe. France traditionally supplies some 70 percent of the fall-winter import market in the United Kingdom, and is also a key supplier to the mainland of Europe and to Scandinavia. French exports have also spilled over—rather heavily in some years—into Latin America, particularly Venezuela, Brazil, and the Caribbean. Over four recent seasons (through 1975/76 only), France exported between 552,000 tons and 686,000 tons.

Apple production in West Germany, Europe's leading apple importer, is placed at 1.154 million tons, 43 percent lower than that of 2 years ago and the smallest crop since that of 1965.

Other highly significant drops in apple production on the Continent in 1977, compared with 1975, are: Belgium-Luxembourg, 55 percent to 120,000 tons; Spain, 35 percent to 707,000 tons; Switzerland, 12 percent to 93,000 tons; the Netherlands, 21 percent to 340,000 tons; and Italy, 15 percent to 1.81 million tons.

In the United Kingdom, a major importer of U.S. and Canadian apples prior to the French takeover of that market, the 1977 apple crop is down just over one-fourth to 250,000 tons, compared with crops in 1975 and 1976. Cooking varieties are only 10 percent lower, while output of dessert varieties is down 35 percent.

Production of Cox's Orange Pippin—a dessert variety that accounts for 55-60 percent of U.K. dessert apples—is 51 percent less than that of last year.

The domestic shortage has pushed U.K. apple prices to record levels, and reports of lower French production have been instrumental in keeping market prices up in the United Kingdom.

In early August, most U.K. retail apple prices were at least $1.54 per kilogram, and retailers were selling apples singly—rather than on a per-kilogram basis—in an effort to clear supplies.

Gains in Latin America

In this part of the world, U.S. apple exporters are getting faint but positive export signals. Last season, a record 27,054 tons of apples were exported to Latin America—16 percent more than during the previous season. This year (1977/78), exports are expected to be up moderately.

Although two countries—Mexico and Venezuela—generally account for slightly over 60 percent of total U.S. apple exports to this area, fairly healthy gains were registered this past season in other Latin American apple markets.

Costa Rica, Guatemala, Honduras, and Nicaragua—although small apple importers—collectively upped their takings by 86 percent last season to 2,427 tons.

In the Caribbean, the Dominican Republic boosted its U.S. apple imports by 42 percent to 1,282 tons. And in South America, apple exporters found a renewed market in Colombia (1,855 tons) as the Government relaxed import restrictions on apples.

The Venezuelan market for apples this season, however, is in a rather uncertain position at the moment. Although U.S. apple exports last season were the highest in many years (9,753 tons), the Venezuelan Government recently established a maximum price ceiling for apples and pears at both the wholesale and retail levels. For apples, the maximum price at wholesale is $1.10 per kilogram; the retail maximum is $1.39 per kilogram. Importers in Venezuela are disturbed at these ceilings, claiming that they leave little or no margin of profit at these prices.

In addition, the import duty on apples has been increased to 20 percent ad valorem (compared with 10 percent at the beginning of the 1976/77 season), and effective August 8, 1977, a port congestion charge of 65 U.S. cents per carton was initiated.

Historically, Brazil has not been an active market for U.S. apples, except in years of short harvests in Argentina—Brazil's largest apple supplier—which is accorded duty-free status because of its LAFTA (Latin American Free Trade Association) membership. France has penetrated the Brazilian market rather heavily since the late 1960's.

With France in a short supply situation, the United States might expect to pick up some volume in Brazil, but the Brazilian Government has a 360-day prior deposit requirement of 100 percent of the f.o.b. value, which will impede any increase in U.S. apple exports to this market.

Even if U.S. apple exports to Brazil do not climb markedly, the United States will no doubt benefit from the shorter apple crops in Western Europe. The United States will probably be picking up sales orders from many countries that were traditionally supplied by Europe. □

Italy's Best Corn Crop Is Expected Despite Dip in Grain Output

Italy's 1977 grain outturn, including rice, is forecast to fall slightly below last year's level, but a record corn crop—and sharply reduced 1977/78 corn imports—are in the offing.

The country's smallest wheat crop in 17 years accounts for most of the drop in total grain production to 15.1 million metric tons, down from 16.6 million a year earlier. This decline is expected to trigger record wheat imports in the 1977/78 marketing year (August-July).

This year's wheat crop, plagued by erratic weather and reduced yields, is expected to be only 7.2 million tons, the smallest output since the 7.0-million-ton crop in 1960. As a result, 1977/78 wheat imports are forecast to reach a record of about 3.8 million tons. Most of these imports will come from the European Community (EC) as the U.S. share remains low.

A sharp expansion in area, plus good weather, indicates a bumper corn crop of 6 million tons, but given the slack feed demand, imports should fall well below last year's level of 4.6 million tons. While imports are predicted to dip 21 percent, the United States and Argentina are again expected to be the main suppliers.

The 1977 rice crop appears headed for a harvest of only about 800,000 tons (paddy basis), consequently exports are projected to remain at about 250,000 tons (milled basis).

Italy's 1977 corn production is expected to rise 12 percent, largely because of a 15 percent expansion in area to 1,026,000 hectares. The combination of the large crop and lower demand by the country's troubled livestock industry should trigger a sharp decline in 1977/78 imports, now forecast at 3,650,000 tons.

During the first 9 months of the 1976/77 marketing year, corn imports had gone from 3,105,000 tons a year earlier to 3,346,000. The U.S. share rose from 1,706,000 tons to 1,957,000 while Argentina's increased from 1,011,000 tons to 1,212,000.

Italy's 1977 soft wheat crop is estimated at 4.75 million tons, also a drop of about 25 percent from that of 1976, as area declined 19 percent to 1,524,000 hectares. Yields of 3.12 tons per hectare were lower than anticipated and resulted from variable weather in northern Italy that led to poor land preparation and untimely planting. In addition, wheat fields were heavily infested with weeds.

Durum wheat production is placed at 2.45 million tons, down 24 percent from last year's as area decreased 19 percent to 1,357,000 hectares. Although a long drought affected a major Durum area in Puglia, a warm, dry June in southern Italy helped produce Durum wheat of high specific weight and full color, compared with the lower quality crop of 1976.

The wheat shortfall this year points to record soft-wheat imports during 1977/78 of 2.9 million tons, compared with 1.75 million in 1976/77. Durum imports in 1977/78 are forecast to rise to 850,000 tons, an increase of 500,000 tons.

Largely because of decreased production and the price gap between Durum and other types of wheat, soft wheat consumption is expected to replace some Durum, which traditionally is used in rural areas for making bread.

Italy's soft wheat imports of 1.6 million tons during the first 9 months of the 1976/77 marketing year came largely from the EC, with France providing about 45 percent of the total, compared with 27 percent during the corresponding period a year earlier. During the same 1976/77 period, the U.S. share fell to 11 percent, compared with 28 percent in the same year-earlier period.

In September, trade reports indicated that Italy's agricultural intervention agency (AIMA) would purchase a sizable quantity of Canadian Durum, and possibly some U.S. Durum, against a 300,000-ton tender. Earlier reports said Italy would opt for lower quality and lower price French Durum.

According to a study by Italy's agricultural research institute (IRVAM), Durum wheat production is forecast to reach 3.8 million tons from 1.6 million hectares in 1981. This production increase would result from the use of high-yield varieties, improved fertilizer plus better weed control techniques. If these projections are realized, Italy would become a surplus producer of Durum while remaining deficit in soft wheat.

However, the possible entry of Spain and Greece into the EC could create problems for Italy's Durum wheat market. While competition from Spain and Greece is not a current concern, there exists great potential for increased output in these countries where production costs are much lower than in Italy.

Italy's 1977 barley area expanded 14 percent to 315,000 hectares, but output, hit by bad spring weather in the north, is forecast to rise only 5 percent to 800,000 tons. Production of oats is expected to increase 7 percent to 470,000 tons while area remains almost unchanged.

During 1977/78, barley imports are estimated to decline about one-fourth to 930,000 tons, with Canada remaining the major supplier. Decreased demand from the country's swine industry is largely responsible for lower import requirements. Oat imports are forecast to drop from 110,000 tons in 1976/77 to 90,000 in 1977/78.

Prevailing good prices encouraged farmers to expand rice area to an estimated 190,000 hectares, up 4 percent from that of 1976. However, adverse weather during harvest reportedly reduced paddy production about 12 percent less than last year's poor 900,000-ton crop. Italy's 1977/78 rice exports are expected to remain at about last year's level. □

Based on report from the Office of U.S. Agricultural Attaché, Rome.

Yugoslavia Plans Large Grain Exports by 1980

By Thomas A. Vankai

Yugoslavia—periodically a sizable importer of U.S. grain—has reiterated its longstanding goal of eliminating grain imports and regaining its onetime position as a major grain exporter.

These goals, published in the country's 5-year plan for 1976-80, foresee grain exports of nearly 2 million tons by 1980. But the plan also calls for continuing strong exports of meat and other livestock products, whose rising output during the past decade led to a siphoning-off of domestic grain supplies.

Should Yugoslavia again become a major exporter of grain, U.S. farm exports to Yugoslavia might stagnate at last year's low level of only about $37 million and revolve around a single commodity group—soybeans and soybean meal. And even in that area, the U.S. market share could be eroded by increased competition from Brazil, while U.S. grain exporters might encounter competition from Yugoslavia in Europe.

Most sources, however, see the plan's aims as highly ambitious, given Yugoslav agriculture's many structural problems and declining growth rates between 1961 and 1975.

Drafted in late 1976 and adopted in May 1977—when Yugoslavia was finding itself more deeply in debt than ever before and with a worrisome balance of trade deficit—the new "Social Plan for Yugoslavia for 1976-80" has the threefold aim of:

- Gradually attaining self-sufficiency in farm products;
- Restraining agricultural imports of complementary goods, most of which would come from developing countries;
- Enhancing exports of Yugoslav food and feed.

Exports of farm products are targeted to rise by 10 percent per year and to reach more than $800 million by 1980, compared with $500 million in 1975 and over $600 million in 1976. Products singled out for export promotion include livestock and livestock products, grains and grain products, wines, and other alcoholic beverages. Export value of agricultural raw materials is targeted at $590 million for 1980; food industry products, $130 million; and tobacco and tobacco products, $95 million.

Among the grains, high expectations are evident for corn, exports of which are slated to reach 1.5 million tons by 1980, compared with 400,000 tons anticipated for the 1977 marketing year. Wheat exports are to reach half a million tons.

A record high grain crop in 1976 of 16.2 million tons, following good crops in the previous 2 years—and the possibilities of a record 1977 harvest—has given Yugoslavia a strong start toward realizing its grain export goals.

Yet past experiences have demonstrated the capriciousness of weather and the devastating effects it can have on production targets. Poor crops during the early 1970's, for instance, forced Yugoslavia to import as much as a million tons of grain a year, with the United States supplying over one-half of such imports in 1971 and 1972.

Even achievement of its grain goals could create problems for Yugoslavia. The high domestic producer price policy for corn vis-a-vis comparatively low world prices such as those now prevailing would necessitate subsidies on Yugoslavia corn exports. And the grain push now underway in all of Eastern Europe—including traditional importers—raises the possibility of Yugoslavia achieving large exportable surpluses just about the time traditional markets begin to shrink.

Yugoslavia simultaneously has the goal of boosting livestock-product exports, which of course hinges on the success of increasing grain supplies for livestock feed. Meat and meat products have been traditionally important exports. They totaled 85,000 tons in 1975 and 89,000 in 1976, recovering partially from the drastic decline in 1974 caused by the European Community's (EC) ban on beef imports.

Yugoslavia's meat exports before the EC restrictions totaled about 100,000 tons a year.

One rapidly growing outlet for Yugoslav processed meat has been the United States. Last year, Yugoslavia ranked next to Poland as the largest East European exporter of processed meat to the United States, supplying $44 million worth—quadruple the value and double the quantity of such exports in 1972.

While Yugoslavia stresses export expansion, it is limiting imports through use of a flexible import duty similar to the EC variable levy system. During 1976, for instance, it used import quotas, limitations on foreign exchange allocations, and increased custom duties to keep imports down. These measures included an additional 5 percent import duty on live animals, livestock products, and grains except rice. The country also levied an additional 3 percent on soybean meal imports, although soybean imports were not affected.

Such measures served to check import growth, which is not to exceed an annual rate of 10 percent, compared with a planned 14 percent for exports. They consequently helped reduce the country's trade deficit to $2.4 billion in 1976 from $3.6 billion in 1975.

During the first half of 1977, Yugoslavia's trade deficit climbed once more—by 20 percent from the same period of 1976 to $2.2 billion—as a result of relaxation of some of the import curbs. But the country is sufficiently worried about its balance of trade position and credit standing—as are its creditors—to continue restraining imports.

Agricultural imports from the United States, meantime, have fallen to their lowest level since 1969, last

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The author is an agricultural economist with the Foreign Demand and Competition Division, Economic Research Service.

He is also the author of Foreign Agriculture *articles on the 5-year plans of the German Democratic Republic, May 9, 1977; Poland, August 1, 1977; and Czechoslovakia, September 27, 1977.*

Top: Two girls, dressed in traditional costumes, lend a hand in the tobacco harvest near the town of Nis. Far left: Forage is delivered to large capacity silos. Left: Outdoor feeding of cattle, a common sight in Yugoslavia.

year totaling only $37 million, compared with $43 million in 1975 and $116 million the year before. Two commodities—$27 million worth of oilcake and meal and $5 million worth of cattle hides—accounted for virtually all of this 1976 trade.

With Brazil now making serious inroads in the soybean meal market, even the current level of trade with the United States could be jeopardized in future years if Yugoslavia succeeds in its plan to get out of the grain import market permanently.

In addition, Yugoslavia has shifted away from its strong trade ties with Western nations toward increased trade with East European nations and the USSR. In 1976, for instance, 30 percent of its imports came from these nations, compared with only 15 percent in 1972, while 42 percent of its exports went there, against 36 percent in 1972. About half that trade was with the Soviet Union.

Production targets on which these trade goals are pegged include a 4-percent yearly increase in total agricultural production; gains in individual crops ranging from 3.1 percent a year for total grain to 119 percent for the still-small soybean crops; and a projected 4.6 percent annual growth in total meat production. Farm production growth is targeted at 8 percent in the socialist sector and 3 percent in the private sector.

In addition, the plan calls for yearly output increases of 8 percent each for the food and feed industries.

Production of feed, particularly corn, is to cover expanding domestic requirements and to provide some extra for export. Higher than average growth rates also have been set for industrial crops—such as sugarbeets, sunflowerseed, rapeseed, and soybeans—with goals to be obtained partly through shifting some area from grains to these products and partly through yield increases.

More efficient production, a 250,000-hectare increase in cultivated land, and greater use of hilly and mountainous land for livestock grazing and fruit growing are seen as some of the means of achieving these goals. More efficient production will be supported by increased investment allocations in the fertilizer and farm machinery industries and for irrigation.

Agriculture is among the six branches of the Yugoslav economy benefiting from

Government-approved priority treatment in investment allocations. Agriculture and related industries will receive about 64 billion dinars (around $3.6 billion) in 1975 prices, which accounts for 11.4 percent of the total investment in fixed assets planned for the socialized sector.

If the 1976-80 plan does succeed, it will generate self-sufficiency in temperate-zone food production while allowing the building of food and feed reserves and providing exportable surpluses of grains and meat. Yet results in the first year of the plan—and during previous 5-year plans—indicate that Yugoslavia may be hard put to meet its goal.

During 1976, Yugoslav agricultural production rose by only 3 percent, compared with the 4 percent planned, despite good gains in total crop production and a record grain harvest. The problem area last year was livestock production, which declined 1 percent as a result of reduced outturns of beef and milk.

Based on these results, the grain production goals seem to be within reach. Significant incentives and administrative intervention will be needed to attain the industrial crop production targets. But the results in 1976 are not encouraging for fulfillment of livestock production plans.

In coming years, growth is expected to accelerate gradually. Again, the livestock industry is considered the key to future growth since its share of gross farm output is to rise to 54 percent by 1980 from 52 percent currently.

Agricultural self-sufficiency has been a long-standing, but elusive goal for Yugoslavia. Past 5-year plans not only have failed to achieve this goal, but also have shown progressively slower rates of production gains. Yearly growth has slowed from 6.2 percent achieved during 1956-60 to 3 percent in 1961-65, 2.9 percent in 1966-70, and 2.4 percent in 1971-75.

Planning agricultural output, let alone achieving results, is more difficult in Yugoslavia than in other East European countries since small producers own almost 85 percent of the farmland, making myriads of individual decisions on 2.6 million farms. In addition, individual Republics and autonomous Provinces have prerogatives to pursue local interests that may not always coincide with the economic goals set at the Federal level for the whole nation.

Other peculiarities in Yugoslavia that make planning difficult are the predominance of dwarf farms not easily reached and influenced by extension services. Forty percent of landowners have less than 2 hectares; 75 percent, less than 5 hectares. Other problems are the uneven development stages of the Republics and Provinces, differences in soil fertility, and variations by Republics and Provinces in the cultivated land ratio.

The socialist sector's share in arable land—meadows included, according to the Yugoslav definition—was 23 percent in 1975. This is slated to rise to 27 percent by 1980 through absorption of 240,000 hectares of privately owned land from farmers retiring or dying without heirs. However, State acquisition of land from private owners has not been progressing satisfactorily, with many farmers, for instance, preferring to sell their property for weekend houses, rather than exchanging it for a Government pension. Enlargement of production units is also promoted within the private sector through farmers' associations. □

Korea's Livestock Buildup Spurs Imports Of U.S. Farm Products

The Republic of Korea has expended great effort and large sums of money in the past several years to boost production of livestock and dairy products and its 1977 development plan calls for sizable increases in production and consumption of meat, eggs, and milk. To make this possible, Korea will continue to import large numbers of dairy breeding cattle and sizable volumes of grain and soybeans, with the United States as one of its major sources.

And, since it is unable to meet its requirements from domestic production, Korea also will import sizable quantities of U.S. raw hides and tallow.

The Korean Government also plans in 1977 to build a large meat storage facility near Seoul, artificially inseminate 250,000 head of livestock, and establish 50 artificial insemination centers. It also proposes to buy a number of particularly high-quality U.S. and Korean native breeding bulls, and register and screen for production potential some 5,400 swine and native cattle.

Encouraged by the Government's interest in boosting milk outturn and the high profits from milk sales, many Korean farmers are investing a greater share of their resources in dairy enterprises. (See *Foreign Agriculture*, Oct. 10, 1977.) To meet their needs for breeding stock, the Korean Government plans to import some 10,000 head of dairy animals in 1977, some against Ministry of Agriculture and Forestry authorizations issued in 1976, but not used before the end of the year.

To be financed by loans from a number of international agencies, including the World Bank and the U.S. Commodity Credit Corporation, the export total will consist of individual orders ranging from 3,052 head for the Korea Dairy Beef Co. and 1,265 for the Korea Enterprise Farm Association, to smaller requests for 85 head for the Daiyang Livestock Co. and 75 for the Changwon Farm.

Korea has not restricted the origin of these cattle to any particular countries so the United States is a contender for part of this busi-

Based on dispatch from Gordon S. Nicks, U.S. Agricultural Attaché, Seoul.

ness. Much will depend on the availability of U.S. cattle, marketing and credit terms, and, more importantly, their selling prices. During January-August 1977, Korea imported 1,859 head of U.S. dairy cattle, and it is likely the total will grow before yearend, a possibility enhanced by Korean farmers' high regard for U.S. dairy cattle breeds, particularly Holsteins.

Depending on market conditions, U.S. shipments of dairy cattle to Korea have fluctuated widely over the years. For example, the number of cattle inspected for export to Korea was 2,446 head in 1973, moving up to the alltime high of 3,763 in 1974. In 1975, the number dropped back to 1,060 head and rose again to 1,854 head in 1976.

Total cattle numbers at the end of 1977 are expected to reach 1.64 million head, 2 percent more than on the previous December. But the number of Korean native cattle is expected to reach only 1.46 million head, less than 1 percent more than in December 1976. Beef cattle numbers are expected to climb 8 percent to 14,000 head and dairy cattle numbers by 21 percent to 163,000 head.

Total meat production in 1977 may reach an estimated 268,400 metric tons, including 83,000 tons of beef, 121,300 tons of pork, and 64,000 tons of poultry meat. This represents an approximate 8 percent increase in the meat total, with expected rises of 9 percent for beef, 8 percent for pork, and 7 percent for poultry, compared with 1976 totals.

Korea's meat, milk, and egg consumption has been moving up for at least the past 5 years. In 1972, 184,680 tons of meat were consumed, 224,730 tons in 1975, and 242,060 tons in 1976. Consumption is expected to rise another 7 percent to 260,400 tons in 1977.

The rate of climb in egg usage was more moderate, but achieved an overall climb of 17 percent between 1972 and 1977.

Milk consumption moved up from 81,100 tons in 1972, to 181,000 tons in 1976, to an estimated 222,530 tons in 1977.

By 1981, meat use is seen reaching 349,850 tons; egg utilization, 4.4 billion; and milk, 504,740 tons.

Per capita meat, egg, and milk consumption also has shown a steady climb. From 5.7 kilograms (kg) per person in 1972, meat use is expected to reach 7.2 kg in 1977 and 9 kg by 1981. Egg consumption is expected to rise from 86 per person in 1972 to 90 in 1977, and to climb by another 23 by 1981. Similarly, per capita milk use has climbed from 2.5 kg in 1972 to 6.6 kg in 1977, and to 13 kg in 1981.

Behind Korea's growing beef and dairy industries is a strong formula feed industry that is based on large imports of feed ingredients, despite growing domestic production.

In 1976, feed production jumped to 1.3 million tons, 49 percent more than the 900,300 tons produced in 1975. Planned output for 1977 is 1.4 million tons, 100,000 tons less than formula feed requirements of 1.5 million tons in 1977—which is 15 percent higher than in 1976.

Although the growth in total formula feed production is expected to be a minimal 2 percent between 1976 and 1977, some categories will show marked increases. For example, dairy feed output is seen rising 72,000 tons to 239,000 and beef feed by 58,000 tons to 187,000 tons, for increases of about 40 percent each. Production of poultry feed, on the other hand, is expected to drop by 7 and swine feed by 13 percent.

Production of all feeds in 1977 is expected to top 10.3 million tons, including the 1.4-million-ton formula feed total, 2.5 million tons of brans and oil cakes, and 6.4 million tons of roughages. The 10.3-million-ton figure is some 4 percent greater than the 9.9 million tons produced in 1976.

Roughage production in 1977 is about the same as in 1976.

Responding to livestock industry demand for feed and ingredients, Korea imported a record 956,830 tons of corn in 1976, 64 percent greater than the 582,000 tons of 1975.

Korean industry sources say imports of corn are expected to set a new record of 1.4 million tons in 1977, some 850,000 tons for feed and 250,000 tons for industrial uses, although the Government has announced it will try to hold total imports to 910,000 tons. Again the United States is expected to be an important source.

The United States, as the major supplier of Korea's soybean imports, provided 146,234 tons of total imports of 147,854 tons in 1976. In the current year, soybean imports are expected to reach 150,000 tons, including 130,000 tons for crushing and 20,000 tons for Government price control use. About 99 percent of the 1977 total is expected to come from this country.

Korea's utilization of hides and tallow will continue to outpace production for the foreseeable future, and the United States will probably continue to be a major source of both. Total Korean imports of rawhides reached 115,200 tons in 1976, with a value of $111.3 million, 46 percent greater in quantity and 90 percent in value over imports a year earlier.

The United States supplied 72 percent of the 1976 volume.

Rawhide imports in 1977 are estimated at 120,000 tons, valued at $118 million, slightly higher than the 1976 import level. Many of these hides are used to produce Korea's leather goods exports, which increased 60 percent in value in 1976 to reach $320 million. Korea's leather goods exports in 1977 are targeted at $380 million, 18 percent more than last year's.

Korea's estimated imports of beef tallow in 1976 reached 105,145 tons, valued at about $43 million, about the same volume as in 1975. Refined tallow is used for making instant noodles, and industrial grades mostly for soap manufacture.

The U.S. share of this market dropped to 80 percent, (about $34.4 million) in 1976 from 97 percent in 1975 ($26.1 million), with Australia picking up the difference. Originally, a tallow import quota for 1977 of 100,000 tons was being considered—including 42,000 tons for industry and 58,000 tons for food use—but now that the quota system has been rescinded, demand could easily climb to 150,000-160,000 tons in 1977.

Also, pushed by rising demand and high domestic meat prices, the Korean Government imported 1,000 tons of beef from Australia and New Zealand in 1976, and may import 3,000 tons this year.

Korea's meat exports have primarily been of pork shipped to Japan. However, a few months ago Japan reinstated its duty on pork, which may have made this market less attractive. Korea had hoped to export some 5,000 tons of pork, valued at $15 million, to Japan in 1977. □

Australian Government Aids Beef Industry

By Harlan J. Dirks

The Australian Government has taken a giant step to aid cattlemen who have protested that without massive Government aid the current depressed situation in the industry could not be reversed. Yielding to pressure, the Government announced a wide-ranging plan that includes cash subsidies for disease control, normal herd management, and spaying of heifers.

Polled Hereford cattle line up in the judging ring at the annual Royal Easter Show in Sydney, Australia.

Yielding to heavy pressure from the cattlemen's lobby, the Commonwealth Government announced on September 22 a wide-ranging, multimillion dollar aid plan to assist the ailing beef industry in Australia.

Graziers' organizations claimed their incomes were not only declining, and in many cases negative, but many were becoming very skeptical about the chances of the current depressed situation being reversed.

Cattlemen, whose returns are now disastrously low, expressed concern that they would likely be out of business long before the "free" market system—without massive Government aid—could ever bail them out of their present predicament.

The beef cattle industry in Australia has been in a severe recession since late 1973 as a result of the collapse in the world market price for beef. Saleyard prices are currently only half of what they were during the peak in 1973.

During this same period, marketing costs have soared upward. Killing charges have about tripled since 1973 and wage rates in the killing works have nearly doubled. The producer's share of the customer's dollar has fallen from 63 percent to 37 percent during this period. Although the high inflation rate is now declining, the industry sees little relief from escalating marketing costs in the near future.

Over the past 3 years the Australian Government has offered various relief measures to the industry, but there is little tangible evidence to suggest that these measures have done much good. The most significant has been the special credit facilities for beef cattle producers. The Government has provided $A31 million in low interest carry-on loans, as well as household support for beef producers who were assessed nonviable (not making enough money to meet expenses).

In another recent move to strengthen the industry, the Government passed legislation to restructure the former Australian Meat Board into the Australian Meat and Livestock Corporation (AMLC). Under this legislation, the new Corporation has been granted additional powers and its scope of operation broadened.

Producers Raise Questions

Cattle producers are now wondering, however, if the fight for the AMLC has been worth the effort. They were particularly disappointed that the new Corporation was not empowered to trade on the domestic market. Cattle producers were hopeful that the AMLC would be in a position to introduce a plan for setting minimum price schedules for beef cattle. They were looking for a price stabilization scheme similar to New Zealand's price-smoothing scheme for livestock. However, the introduction of such a scheme will now require additional legislation.

Perhaps the most significant measure and the one most likely to find favor with cattlemen in the Government's new aid package is the proposal to introduce a cash subsidy of up to $A10 a head—to a limit of $A2,000 per producer—over the next 12 months for disease control measures, for normal herd management, or for spaying young heifers.

At this stage it is not completely clear how the program will operate. It will likely take several weeks to finalize administrative arrangements for the lodgement of claims. In the in-

Mr. Dirks is U.S. Agricultural Attaché, Canberra.

terim, producers have been advised to keep proper records, which will be needed to file future claims. Although the program could possible be justified on grounds of efficiency, its welfare component clearly appears to be the most significant at this time as it will help to increase producers' cash flow.

An important part of the aid plan was the Government's commitment to provide $A6 million toward the capital cost of implementing a nationwide carcass classification scheme. Cattlemen have been pushing for this scheme for some time, seeing it as the basis for an improved marketing system as well as for more effective price reporting. But perhaps more importantly, they see it as a prerequisite for the introduction of a price stabilization scheme for the industry. Whether the latter scheme ever materializes or not, the classification system should be a major plus for the industry.

Along the same general line, the Government agreed to look into the present marketing system for beef and enter into discussions with State Governments and industry leaders about the introduction of a market stabilization scheme for cattle.

Marketing Studied

The main thrust will be to examine ways marketing costs can be reduced and returns to producers increased. The Government will be seeking ways by which a weight and grade selling system can be introduced.

The Prices Justification Tribunal (PJT) has been requested to inquire into the cost of beef marketing and processing in the various parts of Australia. Should the preliminary investigation prove the need, the Government will ask the PJT to make a full-scale inquiry along the following lines:

- To document the price margins that apply through the various beef marketing channels in the different parts of Australia.
- To report on the extent to which the various beef marketing and processing charges can be justified in the light of the levels of domestic and export prices for meat and the resources required to process and market beef.
- To report on the advisability of such charges being the subject of regular examination by the PJT.

The Government assured producers that it would urgently initiate discussions with State Governments and authorities responsible for rural adjustment to ensure that terms, conditions, and funds available for carry-on loans for beef producers are adequate to meet the financial needs of financially disadvantaged producers and ascertain whether household support is adequately available to those cattlemen whose income is so low that it does not even equal the level of Commonwealth unemployment benefits. The Government also called for a 2-year moratorium on financial obligations to hard-hit producers in Central Queensland.

Finally, the Government agreed to look into the particular problems that affect those cattle producers in the more remote, or isolated pastoral areas of Australia. A number of proposals will be examined to see what can be done to improve the relative equality, but two immediate proposals include a new look at freight subsidies and a fuel price equalization scheme.

In general, the measures offered to the cattle industry have been well received, although some anomalies in the program have been pointed out.

Many felt the aid should have been limited to the beef specialist, claiming those with substantial income from grain really did not need the direct aid.

Who Needs the Aid?

They also claimed that the moratorium on loans granted to the cattlemen in the Brigalow area of Queensland might well have been extended to other hard-hit areas. Another apparent anomaly is that the $A10 a head subsidy may not be available to producers in the Northern Territory, the Kimberleys, and many parts of Queensland until next year as mustering and most herd management practices are normally carried out between March and September.

The cost of the program is another point that has not been settled. Treasury and Primary Industry Departments have stated the program will initially cost between $A30 million and $A40 million. However, many industry leaders claim the cost will likely run over $A100 million for a full 12 months of operation. Producers are concerned about whether the Government will actually take any positive initiatives to introduce a price stabilization scheme, pointing out past reluctance. Most cattlemen feel that some kind of a price buffer is probably the most urgent need facing the industry today.

A complicating aspect of the price stabilization scheme is that the first priority of the State and Federal Governments will have to be directed toward structural adjustments, or the movement of nonviable producers out of the industry. A recent Bureau of Agricultural Economics (BAE) study showed that of Australia's 53,300 beef specialists, some 7,000 would earn a negative income even if beef prices were to be doubled. Another 12,000 would show income of less than $A5,000. The two objectives of structural adjustment and improving producers returns could conflict, at least in the short term.

The BAE recently forecast that the future now looks somewhat better as cattle numbers in Australia appeared to have peaked at 33.4 million head in 1977, and the cattle cycle is now on the downside. Then, too, the rate of cow and heifer slaughter has been high for the past several months—53 percent of total compared to a normal rate of about 40 percent—pointing to a substantial reduction in the national cow herd.

With cattle numbers now declining, beef and veal production is expected to at least level off and eventually decline in the years ahead. The BAE is forecasting a 25-percent recovery in cattle prices in the current fiscal year, followed by additional increases in the succeeding years.

Rate of Recovery

The rate of recovery in the Australian beef industry will depend largely on the rate of economic growth in the major beef importing countries, as Australia must find overseas markets for over half of its beef.

Market access will be a major problem, particularly to the most difficult markets, Japan and the European Community. The Commonwealth Government has made repeated representations at the highest levels to gain better access for Australian beef, but so far with only limited success.

Australia hopes to solve some of the access problems during the Multilateral Trade Negotiations when it introduces a plan for a new International Beef Agreement.

Continued on page 15

U.S. Farm Exports Hit $24 Billion In Fiscal 1977

By Sally Breedlove Byrne

Exports of U.S. agricultural products in fiscal 1977 were valued at $24 billion, up from the 1975/76 level of $22.8 billion and a new record for any October-September period.

Volume of the major bulk commodities dropped slightly, largely because of a 6-million-ton decline in wheat shipments.

During the same period, the value of U.S. agricultural imports rose sharply from $10.5 billion to $13.4 billion. The import unit value of coffee—the largest U.S. agricultural import—averaged more than twice the 1975/76 level. Prices of other imported tropical products were sharply higher.

As a result, the agricultural trade surplus dropped to $10.6 billion in fiscal 1977 from $12.2 billion in October 1975-September 1976—the fourth straight year in which this surplus exceeded $10 billion.

The United States recorded a $23 billion deficit in its overall trade balance in fiscal 1977. As the U.S. economy has strengthened, import demand has expanded but export growth has lagged.

Fiscal 1977 U.S. wheat exports (including products) dropped to 25.4 million tons, the lowest level since 1972/73. The unit value fell to $120 per ton from $154 per ton a year earlier. The factors influencing the price decline and the drop in export volume were the record world wheat crop in 1976/77 and abundant supplies in other exporting countries.

U.S. wheat exports to India and Brazil fell sharply. In India, improved grain crops and large stocks reduced import volume. Brazil's wheat crop recovered in 1977 (3.2 million tons, compared with 3 million tons in 1976), and imports from Argentina increased. U.S. wheat exports to Western Europe also dropped sharply. U.S. exports of wheat to Japan were 3 percent larger in fiscal 1977 than in the year-earlier period. Shipments to the USSR totaled 3 million tons, the minimum required under the U.S.-USSR grain agreement.

U.S. feedgrain exports rose 2 percent to 51 million tons. A slight dip in corn exports was offset by larger grain sorghum and barley exports. The unit value declined through the year, averaging $120 per ton in 1975/76, $106 for all of fiscal 1977, and $88 in September.

Increases of 25 percent in feedgrain exports to Japan and 24 percent to Western Europe offset the decline in shipments to the USSR from 10.6 million tons to 2.9 million tons. Shipments to Mexico, Korea, Taiwan, and Israel also were sharply higher.

U.S. rice exports increased in volume by more than a tenth in fiscal 1977. Much of the increase is attributable to shipments of 502,000 tons to Iran and 382,000 tons to Indonesia. Rice shipments to Nigeria and Liberia also expanded.

However, several other markets sharply reduced imports, among them Bangladesh, Korea, India, and Saudi Arabia.

Fiscal 1977 U.S. soybean exports topped the 1975/76 record of 15.05 million tons. The unit value averaged $284 per ton, 41 percent above the year-earlier level. The export unit value peaked in May at $352 per ton.

Soybean exports to Japan decreased 5 percent in volume in fiscal 1977. Shipments to Western Europe were 6 percent smaller than in 1975/76. Soybean exports to the USSR totaled 825,000 tons, 2.5 times the year-earlier volume.

U.S. exports of oilcake and meal fell 11 percent in volume in fiscal 1977. The export unit value averaged $223 per ton, 29 percent above the year-earlier figure.

In 1975/76, 85 percent of U.S. oilmeal exports were made to Europe. This share dropped to 74 percent in fiscal 1977. Oilmeal exports to Canada, however, were up 18 percent in volume, and shipments to Japan were up 81 percent.

Sharply higher soybean and cottonseed oil exports pushed total exports of vegetable oils and waxes up 27 percent in fiscal 1977 to 1.22 million tons.

Much of the increase was a result of a rise in shipments to India of 268,000 tons. Vegetable oil shipments also increased to Iran, Peru, Egypt, and other countries. However, vegetable oil shipments to Europe declined 35 percent, and shipments to Bangladesh fell to 10 percent of the 1975/76 volume.

After 2 years of decline, U.S. cotton export volume rose sharply in fiscal 1977. World cotton consumption exceeded production for the second straight year in 1976/77, creating a relatively tight supply situation, despite sluggish textile demand in the latter part of fiscal 1977. The U.S. cotton export unit value averaged $353 per bale in fiscal 1977, up from $283 in 1975/76.

U.S. cotton exports to Japan rebounded in fiscal 1977, jumping 30 percent in volume to nearly 1 million bales. Exports to Canada rose 43 percent, and a 9 percent increase was recorded in shipments to Hong Kong.

U.S. cotton exports to Korea and Taiwan remained

Farm Export Highlights

- Soybean and oilseed products provided about half the increase in total agricultural export value. Despite the short 1976 crop, soybean export remained large at sharply higher prices. Vegetable oil exports expanded substantially.
- Cotton exports rebounded in fiscal 1977, and the unit value averaged 25 percent above the year-earlier level.
- Wheat export volume dropped 18 percent, and prices averaged 22 percent lower.
- Agricultural exports to the Soviet Union dropped sharply in fiscal 1977 because of that country's record 1976 grain crop and good crop prospects for 1977.
- U.S. exports of many agricultural products increased substantially in fiscal 1977. Among these were animal fats, chicken meat, vegetables, prepared animal feeds, seeds, and nuts. □

The author is an economist in the Foreign Demand and Competition Division, Economic Research Service.

near 1975/76 levels. Egypt and India—traditionally cotton exporters—were substantial markets for U.S. cotton in fiscal 1977.

In fiscal 1977, U.S. unmanufactured tobacco exports passed the $1-billion mark for the first time. Volume and unit value were up 8 percent. Most of the growth came from the developing countries, especially Egypt, Thailand, and Taiwan. In addition, export volume to West Germany, Italy, and Denmark increased from the year-earlier level.

Tobacco exports to the traditionally largest U.S. markets declined. Exports to the United Kingdom dropped 23 percent, and exports to Japan decreased 16 percent in volume.

Strong growth was recorded for exports of many animal products in fiscal 1977. The greatest value increases were in fats, poultry meat, cattle hides, nonfat dry milk, and furskins.

Animal fat exports—principally tallow—were up 33 percent in volume. Shipments were up sharply to Western Europe, Korea, Japan, and South Asia.

The number of whole cattle hides exported was up 5 percent in fiscal 1977, but the unit value was up 25 percent. Shipments to Korea, Spain, and the European Community increased, while fewer hides were shipped to Romania, Mexico, Canada, and Japan.

Meat—including variety meat—exports were up 12 percent in volume, mostly expanded shipments of variety meats to the EC.

Exports of fresh and frozen poultry meat increased 26 percent in volume to 195,000 tons. The biggest growth was in chicken meat shipments to Egypt, Venezuela, the Soviet Union, Hong Kong, and Singapore. □

U.S. Agricultural Exports: Value by Commodity, October-September 1973/74-1976/77

Commodity	1973/74	1974/75	1975/76	1976/77	1976/77-1975/76
Animals and animal products	Mil. Dol.	Mil. Dol.	Mil. Dol.	Mil. Dol.	Percent change
Dairy products	70	143	131	171	+31
Fats, oils, and greases	563	403	406	580	+43
Hides and skins, excl. furskins	346	291	457	591	+29
Meats and meat products	324	382	592	608	+ 3
Poultry and poultry products	146	143	235	302	+29
Other	377	304	386	394	+ 2
Total animals and products	1,826	1,666	2,207	2,646	+20
Grains and preparations					
Feedgrains and products	4,480	4,905	6,010	5,391	−10
Rice	839	941	607	689	+13
Wheat and major products	4,652	5,292	4,787	3,054	−36
Other	142	124	135	141	+ 4
Total grains and preparations	10,113	11,262	11,539	9,275	−20
Oilseeds and products					
Cottonseed and soybean oil	540	601	337	592	+76
Soybeans	3,492	2,989	3,038	4,307	+42
Protein meal	1,098	703	843	965	+14
Other	422	460	474	540	+14
Total oilseeds and products	5,552	4,753	4,692	6,404	+36
Other products and preparations					
Cotton, excluding linters	1,351	1,045	910	1,529	+58
Tobacco, unmanufactured	826	897	929	1,085	+17
Fruits and preparations	610	675	755	804	+ 6
Nuts and preparations	171	164	182	223	+23
Vegetables and preparations	431	534	595	697	+17
Feeds and fodders	274	299	381	620	+63
Other	452	559	570	730	+28
Total products and preparations	4,115	4,173	4,321	5,688	+32
Total	21,606	21,854	22,759	24,013	+ 6

U.S. Agricultural Exports: Volume by Commodity, October-September 1973/74-1976/77

Commodity	1973/74	1974/75	1975/76	1976/77	1976/77-1975/76
	1,000 MT	1,000 MT	1,000 MT	1,000 MT	Percent change
Wheat and products	27,806	30,404	31,127	25,384	−18
Feedgrains and products	39,347	35,361	50,145	50,908	+ 2
Rice	1,694	2,214	1,953	2,229	+14
Soybeans	15,092	11,486	15,050	15,156	+ 1
Oilmeal	5,316	4,075	4,870	4,336	−11
Vegetable oils	1,142	988	965	1,223	+27
Cotton, excluding linters	1,263	1,284	733	988	+35
Tobacco	313	274	273	296	+ 8
Total	91,973	86,086	105,113	100,520	− 4

Leading Markets for U.S. Agricultural Exports [1]

Country	1974/75	1975/76	1976/77	1976/77-1975/76
	Mil. Dol.	Mil. Dol.	Mil. Dol.	Percent change
Japan	3,213	3,408	3,773	+11
Netherlands	1,683	1,742	2,179	+25
West Germany	1,535	1,619	1,933	+19
Canada	1,317	1,430	1,586	+11
USSR	596	1,853	1,063	−43
Republic of Korea	861	809	919	+14
United Kingdom	608	662	913	+38
Italy	881	797	836	+ 5
Taiwan	494	516	612	+19
Mexico	735	380	608	+60
Spain	788	658	595	−10
Egypt	440	415	563	+36
Belgium/Luxembourg	298	449	536	+19
India	765	776	415	−47

[1] Not adjusted for transshipments.

Brazil's Crop Output Tied to Increased Fertilizer Usage

By Charles J. Shellard

Brazilian farmers now are using almost six times as much fertilizer as they did 10 years ago. This rapid growth is directly related to the vigorous expansion of Brazil's agricultural output.

Total use of chemical fertilizers (nutrient equivalent) climbed from 448,000 metric tons in 1967 to 2.3 million tons in 1976. Consumption in 1977 could jump another 13 percent to 2.6 million tons. By 1980, NPK (nitrogen, phosphorus, potassium) consumption is likely to reach 3.5 million tons.

During 1977, farmers are expected to apply 550,000 tons of nitrogen, 1.3 million tons of phosphates, and 770,000 tons of potash. Consumption of phosphate has been rising faster than other fertilizers because of the special nutrient needs of Brazilian soils, particularly in frontier regions.

Despite the past decade's impressive growth in fertilizer consumption, Brazil's total usage remains small compared with that of many developed countries. Brazil does, however, consume more fertilizer per hectare than any other South American country. Consumption in 1976 was 55 kilograms (kg) of fertilizer per hectare of cropland—a little less than one-half of the United States 1975 consumption of 117 kg per hectare.

Wheat and soybeans together account for more than one-third of the fertilizer consumed in Brazil. A large portion of the wheat area is double-cropped with soybeans.

Coffee and sugarcane each consume another 15 percent or so of the total supply. Cotton, cocoa, and fruit and vegetable crops also use large amounts of fertilizer.

Cotton area has dropped during recent years, resulting in smaller production, but output of other crops has increased sharply.

Increasing from 4.3 million tons to 8 million tons, the rise in sugar production during the 10 years from 1968 to 1977 has been paced by other crop rises—soybeans from 650,000 tons to 12 million, and wheat from 700,000 tons to 3.2 million. Coffee production dropped because of severe frost in 1975, but production is recuperating, and fertilizer use for this crop has been high.

Area currently planted to these heavy fertilizer-using crops is about 1.5 million hectares in sugarcane, 2.6 million in coffee, 7 million in soybeans, and 800,000 in cotton.

Brazil's fertilizer usage varies widely according to geographical regions. Eighty-six percent of the fertilizer consumed in the country is used in the more highly developed southeast and southern regions, 6 percent in the frontier area of the Central-West, and 8 percent in the relatively poor north and northeast regions.

Acid and poor in many regions, especially in the cerrados (see *Foreign Agriculture*, May 16, 1977), Brazil's soils require massive applications of lime and fertilizers to bring them back into continuous production.

The Federal Government is actively encouraging growth in fertilizer use by directly or indirectly subsidizing farmer purchases. Since 1966, credit has been made readily available interest-free or at very low rates, an important incentive in an economy such as Brazil's, where inflation sometimes reaches 30 or 40 percent per year.

Prices paid by Brazilian farmers are higher than those paid by American farmers. For example, prices in the city of São Paulo in March 1977, show that urea cost US$251 per metric ton, compared with $186 in this country. Sulphate of ammonia in Brazil was $120 per ton; in the United States, $111 per ton.

Similarly, the Brazilian price of ammonium nitrate was $198, the U.S. price, $155; and for simple superphosphates, $120, compared with $109. Prices in interior farming areas are often higher than they are in São Paulo.

A large importer of fertilizer, Brazil buys about 65 percent of its total needs overseas at a cost of $300 million per year. Total fertilizer nutrient imports, which in 1967 amounted to 300,000 tons, are expected to total almost 1.8 million in 1977. This should drop to roughly 1.2 million tons in 1980, as a result of the expected growth in domestic production.

Increasing its output about tenfold over the past decade, Brazil's fertilizer industry is most heavily concentrated in the State of São Paulo. In 1967, Brazilian production was 7,100 tons of nitrogen and 90,150 tons of phosphate fertilizer.

This year, production should total 250,000 tons of nitrogen and 700,000 tons of phosphates. Brazil produces no potash fertilizers.

Because the industry is building numerous facilities and consequently deadlines for completion of expansion projects are not always met on time, it is difficult to make reliable forecasts of fertilizer production. However, according to estimates of trade and industrial sources, about 2.3 million tons per year of nitrogen and phosphates should be produced locally by 1980. This would account for most of the projected demand for these two nutrients.

Production of these fertilizers will still rely upon large amounts of imported phosphate rock and ammonia. Potash deposits exist in the northeastern State of Sergige, and plans for developing the deposits are under study. However, it is believed that by the 1980's, potash production still will not be significant.

There is big hope for Brazil's future phosphate supplies, owing to recently discovered reserves in central Brazilian States of Minas Gerais and Goiás. These reserves, calculated at 160 million tons, are now being developed and by the mid-1980's could supply most of Brazil's phosphate rock demands. □

Mr. Shellard is an economist in the Office of the U.S. Agricultural Officer, São Paulo.

CONTACTS
FOR U.S. FOOD PRODUCTS

Some 14 U.S. companies have reported recent sales totaling $1.2 million as a result of contacts with foreign buyers through the monthly trade letter, "CONTACTS for U.S. Food Products," a service initiated by Foreign Agricultural Service to help U.S. suppliers of agricultural products locate customers overseas.

The trade letter provides names and addresses of U.S. suppliers and brief descriptions of products they offer. The letter also is used for announcements of trade shows and other developments of interest to foreign firms. The trade letter is distributed to foreign buyers through the offices of U.S. Agricultural Attachés overseas.

Most recent sales covered a wide range of agricultural products, including canned vegetables, juices, poultry, honey, fresh produce, dietetic foods, powdered drink mixes, chocolate syrup, seeds, and livestock feeds.

An official of one U.S. firm, a manufacturer of canned and frozen vegetables, wrote: "The number of inquiries that we have received has not been overwhelming. However, the inquiries have been highly qualified leads interested in purchasing product. Through 'CONTACTS,' I have established at least two good distributors overseas . . . it is only through contact overseas that substantial sales can be made."

Firms can submit a product announcement for the trade letter to the export representative of their State Department of Agriculture or to the Export Trade Services Division, Foreign Agricultural Service, U.S. Department of Agriculture, Washington, D.C. 20250.

The announcement must be limited to 100 words or less and include the bank reference, complete address, phone and/or telex number of the company.

All weights and measures in the product description must be in the metric system and preference will be given to new exporters and/or new export products. There is no charge for the service. □

Cologne Show: $3.5 Million In U.S. Sales

U.S. exhibitors reported on-site sales of $3.5 million at Cologne's 1977 ANUGA food trade show, touted as the world's largest such show. The International food extravaganza boosted 3,861 exhibits from 78 countries, including 37 U.S. exhibits featuring a wide variety of American food.

Held every 2 years, this year's show covered 200,000 square meters, equivalent to 23 U.S. football fields. The U.S. exhibits, organized by the German American Chamber of Commerce, included a U.S. Catalog and Information Booth and trade lounge, sponsored by the Foreign Agricultural Service (FAS), for use of U.S. firms and visiting state groups.

Besides the multimillion-dollar sales of seafoods, spices, poultry, fruit juice, and other items, 85 trade leads—foreign firms expressing a desire to buy—were received at the FAS information booth. □

Continued from page 11

Australia Beef

The details of this plan have not been revealed, but its main objectives are aimed at reducing trade barriers and setting a minimum level of access for the major markets. The plan will also call for a surveillance body to be established in the General Agreement on Tariffs and Trade.

The consensus is that recovery in the Australian beef industry will be slow as escalating marketing costs continue to keep pressure on producer prices. The steady fall in land values in the cattle country and the fact that many cattle properties are now up for sale in Australia, indicates continued hard times for many. Although Government aid will help, it now seems clear that many of the 19,000 beef specialists in financial trouble will likely be forced out of the cattle business in the next 5 to 10 years. □

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Bob Bergland, Secretary of Agriculture.

Dale E. Hathaway, Assistant Secretary for International Affairs and Commodity Programs.

Thomas R. Hughes, Administrator, Foreign Agricultural Service.

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Initial FY 1978 Title I, P.L. 480, Allocations Announced

The U.S. Department of Agriculture has announced initial commodity and country allocations for fiscal 1978 under Title I of Public Law 480.

Assistant Secretary of Agriculture Dale E. Hathaway said the current program provides for distribution of $653.5 million in planned commodity shipments to the proposed Title I countries, plus a reserve of $146.5 million.

Dr. Hathaway said the program takes into account variations in commodity and budget availabilities, both in the United States and in participating countries; changing economic and foreign policy situations, including human rights' assessments; fluctuations in commodity prices; availability of handling, storage, and distribution facilities; possible disincentive impact, and other factors.

Situations may develop, he said, that would cause a change during the year in the country and commodity allocations. Each program will be carefully reviewed prior to negotiations with the recipient country he said, and that the initial allocations represent neither final Government commitments nor agreements with participating governments.

The initial allocation, Assistant Secretary Hathaway said, was designed also to meet the requirements of section III of P.L. 480, as amended, which directs that not less than 75 percent of food aid commodities be allocated to friendly countries which meet the International Development Association poverty criterion. The announced countries in ,this category are those with an annual per capita gross national product of $550 or less.

Title I sales involve long-term credit to countries, in association with their plans for self-help through agriculturally related activities. □

Initial P.L. 480 Concessional Sales Allocations, FY 1978

Country	Value	Wheat	Rice	Corn/ barley/ sorghum	Vegetable oils	Total food	Cotton	Tobacco
	Mil. U.S. dol.	*1,000 MT*	*1,000 MT*	*1,000 MT*	*1,000 MT*	*1,000 MT*	*1,000 bales*	*1,000 MT*
$550 or Less GNP								
Afghanistan	5.2	50	—	—	—	50	—	—
Bangladesh	55.9	150	50	—	30	230	35	—
Egypt	155.5	[1] 1,500	—	—	—	1,500	—	—
Guinea	5.5	[2] 13	9	—	3	25	—	—
Haiti	9.9	40	10	—	5	55	—	—
Honduras	1.5	15	—	—	—	15	—	—
India	27.8	—	—	—	60	60	—	—
Indonesia	99.3	182	300	—	—	482	—	—
Morocco	10.3	100	—	—	—	100	—	—
Pakistan	57.6	200	—	—	80	280	—	—
Philippines	13.3	35	—	20	—	55	25	—
Senegal	6.7	—	25	—	—	25	—	—
Sierra Leone	1.4	5	—	—	—	5	—	0.2
Somalia	2.0	7	5	—	—	12	—	—
Sri Lanka	14.0	[2] 133	—	—	—	133	—	—
Sudan	10.3	100	—	—	—	100	—	—
Tanzania	2.7	—	10	—	—	10	—	—
Zaire	17.9	20	10	10	—	40	10	2.0
Zambia	4.6	20	—	—	4	24	—	—
Total	501.4	2,570	419	30	182	3,201	70	2.2
Over $550 GNP								
Israel	7.2	70	—	—	—	70	—	—
Jamaica	10.0	29	—	60	—	89	—	—
Jordan	5.2	50	—	—	—	50	—	—
Korea	57.8	200	—	[3] 150	—	350	75	—
Lebanon	7.7	40	5	—	—	45	—	.5
Peru	5.0	48	—	—	—	48	—	—
Portugal	40.0	200	18	54	—	272	30	—
Syria	14.0	[2] 53	20	—	5	78	—	—
Tunisia	5.2	50	—	—	—	50	—	—
Total	152.1	740	43	264	5	1,052	105	.5
Unallocated	146.5	1,065	138	—	—	1,203	—	—
Total	800.0	4,375	600	294	187	5,456	175	2.7

[1] Including 375,000 MT flour in wheat equivalent. [2] Wheat equivalent of flour. [3] Barley.